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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,313	09/08/2003	Cheri M. Boykin	1789A1	9768

7590 02/27/2006

PPG INDUSTRIES, INC
INTELLECTUAL PROPERTY DEPT.
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EXAMINER

CHAUDHRY, SAEED T

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/657,313	BOYKIN ET AL.	
	Examiner	Art Unit	
	Saeed T. Chaudhry	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 29-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/03, 3/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restriction

Applicant's election of Group I, claims 1-28 in Paper No. 12/12/2005 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7, recite a limitation "water-fed pole", it is not clear what is meant by this term.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (c) he has abandoned the invention.
- (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
- (f) he did not himself invent the subject matter sought to be patented.
- (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not

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only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Claims 1-3, 5-10, 13, 15-22, and 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bartsch et al.

Bartsch et al (6,869,028) disclose a method for cleaning hard surfaces such as glass, plastic or steel by spraying unpurified water before a washing step and then spraying a cleaning composition on the surface to be hydrophilic and then spraying purified water (conditioned water) on the hydrophilic surface. (see col. 3, lines 6-42). The cleaning composition and the purifier is capable of rendering the surface treated therewith hydrophilic and cleaning composition comprising carboxylic acid and other components such as surfactants, chelating agents and perfumes (see col. 9, lines 5-27 and col. 10, lines 38-46). The purified water is produced by passing unpurified water through mixture of several ion exchange resins and small particle size resin beads are used for higher ion exchange efficiency (see col. 7, lines 19-26 and 62-63). The reference does not specify the conductance of the purified water, since the water is purified with resin bed as disclosed by the applicant. Therefore, the conductance is inherently less than the claimed limitations.

Claims 1-3, 5-10, 13, 15-22, and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawes et al.

Hawes et al (WO-97/48927) disclose a method of cleaning glass windows by spraying a cleaning composition onto the window surface, preparing purified rinse water by passing through an ion exchange resin and rinsing the window surface with the purified rinse water (see abstract and page 8, lines 23-28). The cleaning composition is heavily built detergent and preferably

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contains low foam surfactants. The cleaner include at least one organic builder such as amino acid, carbohydrate builder such as sugar (see page 5, lines 5-29).

A significant advantage of the method is in eliminating or reducing the formation of an undesirable, residual hard water film or spots on the surface that has been cleaned. This is achieved by removing the hardness of the rinse water by first passing the rinse water through an ion exchange resin such as a bed of ion exchange resin particles (see page 9, lines 1-6). The spray gun includes a main body and an ion exchange cartridge, which is replaceable (see page 12, lines 9-28). The reference does not specify the conductance of the purified water, since the water is purified with resin bed as disclosed by the applicant. Therefore, the conductance is inherently less than the claimed limitations.

Claims 1, 10, 13, 14, 16-19, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Robinson et al.

Robinson et al (5,645,737) disclose a method of cleaning a hydrophilic surface by dipping in HF followed by a rinse in an organic carboxylic acid surfactant and then removing carboxylic acid surfactant from the surface with deionized water (conditioned water) rinse (see col. , lines 40-43, col. 2, lines 15-33).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4, 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartsch et al or Hawes et al in view of Corlett et al.

Bartsch et al or Hawes et al were discussed supra. However, the reference fails to disclose multi-beds.

Corlett et al (6,379,538) disclose for producing deionized water (conditioned water) by passing through resins multi-beds (see col. 4, lines 10-42).

It would have been obvious at the time applicant invented the claimed process to incorporate multi-beds as disclosed by Corlett et al into the processes of Bartsch et al or Hawes et al because it well known and conventional in the art to produce deionized water (conditioned water) with multi-beds exchange column. Further, one of ordinary skill in the art would use a water-fed pole for applying conditioned water on the surface for easy handling.

Claims 11-12 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartsch et al or Hawes et al or Robinson et al.

All the references were discussed supra. However, the reference fails to disclose that conditioned water in added in the cleaning solution.

It would have been obvious at the time applicant invented the claimed process to use deionized water into the cleaning solution to enhance the cleaning efficiency and to reduce the

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other contaminants to include in the cleaning solution. One of ordinary skill in the art knows that minerals and ions are removed from the deionized water and expect that mixing deionized water rather than regular water would produce ultra pure cleaning solution with cleaning agents and surfactants. Therefore, one would use this cleaning solution and expect that cleaning with this solution would give better cleaning.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed T. Chaudhry whose telephone number is (571) 272-1298. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 4:00 P.M.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Barr, can be reached on (571)-272-1414. The fax phone number for non-final is (703)-872-9306.

When filing a FAX in Gp 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Saeed T. Chaudhry
Patent Examiner


FRANKIE L. STINSON
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